CLAIMS

1. Optical cable comprising:

- an optical core comprising a central strength member, a plurality of optical fibers and a thermoplastic polymeric material disposed around said strength member and embedding said optical fibers, said optical core having a predetermined outer diameter;
- at least one protective layer disposed around the said optical core;

wherein said optical core comprises a joint section having substantially the same diameter as said predetermined diameter of the optical core, said joint section comprising a jointed portion of said strength member and a spliced portion of each of said optical fibers, the strength member and the optical fibers comprised in said joint section being embedded into a cured polymeric material.

2. Optical cable according to claim 1 wherein said cured polymeric material has a modulus of elasticity not lower than about 1/3 of the modulus of elasticity of said thermoplastic material.

3. Optical cable according to claim 1 wherein said cured polymeric material has a modulus of elasticity not lower than about 1/2 of the modulus of elasticity of said thermoplastic material.

4. Optical cable according to claim 1 wherein said cured polymeric material has a modulus of elasticity not greater than about five times the modulus of elasticity of said thermoplastic material.

5. Optical cable according to claim 1 wherein said cured polymeric material has a modulus of elasticity not greater than about three times the modulus of elasticity of said thermoplastic material.

6. Optical core for a telecommunication cable comprising

- a first section and a second section, said first and second sections having substantially a same predetermined diameter and respectively comprising a central strength member, a plurality of optical fibers and a thermoplastic polymeric material disposed around said strength member and embedding said optical fibers;

- a third section, disposed between said first and second section and comprising a splicing between said plurality of optical fibers and a jointing between the strength members of said respective first and said second section;

wherein said third section comprises a cured polymeric material disposed around and embedding said jointed strength member and said spliced optical fibers, said third section having substantially the same diameter as the predetermined diameter of said first and second sections of the optical core.

7. Method for jointing a first section of an optical core for a telecommunication cable with a second section of an optical core of a telecommunication cable, said first and second optical cores having substantially a same predetermined diameter and respectively comprising a central strength member, a plurality of optical fibers and a thermoplastic polymeric material disposed around said strength member and embedding said optical fibers, wherein said method comprises:

- removing the polymeric material for a predetermined length at one respective end of said first and of said second section, for exposing a respective portion of said two pluralities of optical fibers and of said two strength members;

- splicing the respective exposed portions of said plurality of optical fibers and jointing the two exposed portion of the respective two strength members, thus obtaining a length of an assembly formed by said exposed spliced portions of optical fibers and by said exposed portion of jointed strength member;

- providing a liquid radiation curable coating composition along the whole length of said assembly;

- curing said radiation curable coating composition, in order to obtain an elongated element of a cured polymeric material embedding said optical fibers and said strength member, said elongated element having substantially the same diameter as the predetermined diameter of said first and second sections of the optical core.

8. Method according to claim 7 wherein said coating composition is provided by means of a movable coating device, which is traversed along the length of said assembly from a first end to a second end thereof.

9. Method according to claim 7 wherein said coating composition has a viscosity at 25°C of at least 1 Pas.

10. Method according to claim 7 wherein said coating composition has a viscosity at 25°C of at least 5 Pas.

11. Method according to claim 7 wherein said coating composition has a viscosity at 25°C not higher than 100 Pas.

12. Method according to claim 7 wherein said coating composition has a viscosity at 25°C not higher than more preferably not higher than 50 Pas.

13. Method according to claim 7 wherein the length of the spliced optical fibers is from about 0.01% to about 0.1% less than the length of the strength member.

14. Method according to claim 7 wherein the length of the assembly is from about 80 cm to 120 cm